SOFTWARE RELEASE NOTICE

SYSTEM: Automated Tracking Station (ATS) **RELEASE: 2.3A**

DATE: July 28, 1999

MODIFICATION DESCRIPTION:

All work was requested through Request-for-Support (RFS) #98-098 and 99-002. Copies of these requests can be obtained from NASA Code 584/CSC task leader Susannah A. Warner (757-824-2496). The changes made to the ATS source code are archived on compact disc, as well as under administrative control using Microsoft Visual Source Safe at Scientific-Atlanta.

This software release is an upgrade to ATS 2.2 installed in May, 1999 and provides:

(1) Full automation control of two switch devices, the GDP-911 and MSC-10693. Switch device configuration files are now editable like others through the Profile Editor. A complete re-build of ATS was conducted in order to incorporate all switch device references in several, globally-used header files. These header files *include EventDef.h, ProcVar.h, RsrcVar.h, RsrcDef.h* and *WcOpTrackingStation.hpp*.

(2) A duplicate tape report preparation window in the *ShippingReport.exe* application. This report allows operations personnel the opportunity to prepare a file containing the names of the primary and duplicate tapes. This duplicate information for (DIF*x*) file is sent to the WOTIS database and referenced when a tape shipping report (SIF*x*) file is produced; *x* denotes the ground station character label (A, M, S or W).

(3) The TR code label embedded in the file name of the operational profile. An operational profile is a directory containing device configuration files. One is created for each support by ATS when a new schedule is delivered or inserted into the Master. The addition of the TR code label into the name of the operational profile directory allows ATS to accommodate the frequent changes of the TR code imposed by WOTIS scheduling or projects. Manual deletes of the affected supports will no longer be required.

(4) A corrected pass result summary report when dual X-band and an S-band support are summarized at takedown. This bug was inadvertently introduced in the release of ATS 2.2. Some pass result files received from AGS and SGS contain incorrect X-band recording start and stop times.

ATS 2.3A contains changes that affect the following applications:

C:\Master\MonitorAndControl.exe:

Enhancement: Source code was changed to provide automation of the two switch devices. These include *Support.cpp, ShowSchedule.cpp, SubsystemProcesses.cpp, InitializeButton.cpp* and the header file *MenuFunctions.hpp*.

C:\Master\ProfileEditor.exe

Enhancement: Source code was changed to provide configuration file edits for the two devices. These modules include *ProfileEditor.cpp, ResourceView.cpp* and *InitData.cpp.*

C:\Master\MatrixMSC10693.exe:

Enhancement: Source code was changed to provide configuration file modifications of this device. This graphical user interface alows connections between 32 input and output channels. These modules include *MatrixMSC10693.cpp, StatusView.cpp, ControlView.cpp, AppFileIO.cpp*.

C:\Master\MatrixGDP911.exe:

Enhancement: Source code was changed to provide configuration file modifications of this device. This graphical user interface allows connections between 64 input and output channels. This was new development so files *MatrixMSC10693.cpp, StatusView.cpp, ControlView.cpp* and *AppFileIO.cpp* have been created.

C:\Master\OpTsGDP911.dll and **c:\Node\OpTsGDP911.dll**
Enhancement: Remote command control for the GDP-911 device was provided to allow automation.

C:\Master\OpTsMSC10693.dll and **c:\Node\OpTsMSC10693.dll**
Enhancement: Remote command control for the MSC-10693 device was provided to allow automation.

C:\Master\PassResultsCompiler.exe
Fix: Reported X-band recording start and stop times is corrected.

C:\Master\ShippingReport.exe
Enhancement: A duplicate tape report preparation window was added.

FILES AFFECTED:

All ATS applications (*.exe) were re-built because of changes made to the device and resource header files. Two ATS dynamic link libraries have also been modified.

Device status logging text files and operator-created profiles are never affected. See **Attachment 1: ATS 2.3A FILES AND FOLDERS**.

YEAR-2000 ISSUES

ATS 2.3A software changes will not violate any Year-2000 Master/Node integrity.

DOCUMENTATION

The on-line ATS user manual will be updated with information regarding the ATS 2.3A changes. See http://www.wff.nasa.gov/~code584/awots.html.

HARDWARE REQUIREMENTS

(no changes)

- Minimum Pentium-200 MHz for Master and Nodes.
- Minimum 64 megabytes RAM
- Windows NT 4.0 (service pack 3)
- Devices connected to Node PCs via RS-232 port (and, in some cases an IEEE converter) on a Digibox. A Hewlett-Packard workstation (HP-UX 10.2) functions as an 11meter antenna control console.

VALIDATION PROCEDURES:

The ATS software team has completed limited testing of the software changes in the WFF N-161 lab. Full operational testing, however, is recommended at NASA/WFF/WGS for a five (5) day period beginning July 1, 1999 on the AWOTS systems, *wgsmaster1, wgsmaster2, wgsnode1, wgsnode2* and *wgsnode3*. This operational testing will be scheduled through WOTIS scheduling engineer Debbie Dukes (x2186). It will be monitored by ATS s/w representative Jeff Dorman and AWOTS engineers Mark Lamberson, Alan Schonebrunner and Herb Davis. ATS 2.2 can be re-installed after any ATS 2.3A installations in order to continue with regular operations . Other site installations will follow given ATS 2.3 satisfactory performance.

KNOWN BUGS OR LIMITATIONS:

ATS 2.3, like ATS 2.2, will experience a problem when processing updates to the WOTIS-delivered schedule, wotrs.mas, that covers a multi-day period. The situation can occur when a subsequent edit of this schedule by WOTIS engineers removes ***all*** events from a particular day and is re-transmitted. In this case, ATS does not clear those events from memory and display, and continues to support them through automation. WOTIS scheduling engineers are requested to include any type of test support for those days when they are forced to remove all previously-scheduled events. In the event that the scheduling procedure is violated, ground station operations personnel maintain the capability to manually delete the rogue supports.

ATS 2.1.1 resolved this problem . It prohibited, however, normal processing and display of a multi-day schedule during the typical daily one-day file updates and delivery to the Master from the Landsat7 project office.

ATS has a problem in distinguishing intentional deletes by the WOTIS scheduling office from one-day file updates in the wotrs.mas file. ATS will accommodate both cases when WOTIS scheduling and software personnel can agree on correct design.

INSTALLATION PROCEDURE:

Installation of this release will be conducted with a disk copy of the files (see **Files Affected** above) to the Wallops Ground Station (WGS). Installation will take no more than one hour. Installation of the software to the Alaska Ground Station (AGS) and Svalbard Ground Station (SGS) will be by mailed CD.

COMMENTS:

Points of contact for ATS release 2.3 are David L. Davis/NASA (757-824-1444) and Jeffrey L. Dorman/CSC (757-824-2300).

APPROVAL:

The software modifications described in this release notice has been validated and accepted.

_____ _____
NASA EPGS Project Manager Date

_____ _____
NASA AWOTS/WGS Project Manager Date

SOFTWARE RELEASED:

The software modifications described in this release notice has been completed and released to ground station operations.

_____ _____
System Manager Date

_____ _____
NASA Program Monitor Date

ATTACHMENT 1

ATS 2.3A FILES AND FOLDERS

FILES ON ALL MASTERS:

Directory of C:\Master

11mInterface.exe
BitSynchronizerDecom7715.exe
DemodulatorAydin329A.exe
FilterKrohnhite3905B.exe
FilterKrohnhite3905B.txt
FrameSynchronizerGDP225D.exe
Grm.exe
ManualNotification.exe
MasterPassword.exe
MonitorAndControl.exe
MatrixHPE1366A.exe
MatrixHPE1366A.txt
MatrixMSC10693.exe
MatrixGDP911.exe
MatrixOptraxSS100B.exe
ModulatorGDP783M.exe
PCMSimulatorGDP233.exe
ProgTMProcAvtec1001.exe
RecorderMetrumBVLDS.exe
PassResultsCompiler.exe
SAFSHeartbeat.exe
Scheduler.exe
ShippingReport.exe
StationAssetsEditor.exe
StatusClientRegister.exe
StationStatusBroadcaster.exe
StationStatusDisplay.exe
SynthesizerHP3325B.exe
WOTISInterface.exe
WFFTDF.exe

FILES ON ALL NODES:

Directory of C:\Node

BitSynchronizerDecom7715.exe
DemodulatorAydin329A.exe
DemodulatorAydin329A.txt
FilterKrohnhite3905B.exe
FilterKrohnhite3905B.txt
FrameSynchronizerGDP225D.exe
MatrixHPE1366A.exe
MatrixMSC10693.exe
MatrixGDP911.exe
MatrixOptraxSS100B.exe
ModulatorGDP783M.exe
PCMSimulatorGDP233.exe
ProgTMProcAvtec1001.exe
RecorderMetrumBVLDS.exe
StationStatusDisplay.exe
SynthesizerHP3325B.exe
WFFTDF.exe

OpTsMSC10693.dll
OpTsGDP911.dll